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October 15, 1999

Ms. Cheryl Adelman
Environmental Protection Agency
2000 Traverwood Drive
Ann Arbor, MI 48105

Subject: Draft Outline NPRM Service Information Regulation Revisions

Dear Cheryl:

The Alliance of Automobile Manufacturers, Association of International Automobile Manufacturers (AIAM), and our members would like to thank you for the opportunity to comment on the subject document you presented on August 31st (the draft outline). For a number of reasons, service information is important to automobile manufacturers.

Manufacturers devote tremendous resources to produce thousands of service information documents annually. These documents must cover every vehicle, every engine, and virtually every conceivable circumstance. More importantly, manufacturers produce these documents to ensure the swift and accurate repair of vehicles regardless of whether the repair is performed at a franchised dealership or at an independent repair shop. Quality repairs lead to improved air quality and satisfied customers and these are certainly in the best interest of the automobile manufacturers (OEMs). In fact, because of OEM commitment to quality repairs, the Alliance and AIAM initiated the Arizona Pilot Program to allow manufacturers to work with independent repair technicians and ensure they have the information they need.

In this spirit, we offer the comments below. Please recognize that these comments are based on the draft outline and many more details are needed for complete and formal comments. Nonetheless, we hope you find these comments useful.

Web Site Requirements

This section of the draft outline contains some of the requirements for providing Internet access to emission-related service information. Overall, the Alliance and AIAM support this requirement, as long as sufficient lead-time and an adequate phase-in are provided. Specific comments on the individual requirements include:

- Effective Date and Model Years to be Included: Providing service information in electronic form over the Internet will require some manufacturers to revise the service information format. Manufacturers have already completed service information for 2000 model year (MY) vehicles and are preparing service information for 2001 MY vehicles. Since manufacturers must tailor the information and websites to meet the specific requirements EPA imposes in the final rule, adequate lead-time must be based on the date of the final rule. For Alliance and AIAM members'

service information, two model years should provide adequate lead-time to incorporate the information and website requirements. Thus, if EPA publishes the final rule before September 2000 (i.e., before the 2001 MY), the Internet access requirement for emissions-related service information should begin with the 2003 MY vehicles. If the rule comes out after September 2000, then the requirement should begin with 2004 MY vehicles.

It should be noted that while the above-mentioned deadline would apply to the regulatory requirement, many manufacturers will have websites and Internet access in operation well in advance of the regulatory deadline.

This timing only applies to the service information and not training materials. As will be discussed later, we recommend that manufacturers provide electronic ordering capability, via their website, for training materials.

- Incorporating information on earlier model year vehicles onto websites is a very extensive undertaking for manufacturers since this information was not initially developed for website publication and may require widespread reformatting. In fact, in some cases, manufacturers would need to convert paper information into an electronic format. (Converting paper information to allow for Internet access may prohibit a word-by-word search of the document.) As a result, manufacturers would need additional time to incorporate prior model years onto the web, and in some cases, there may be more cost effective and appropriate options for making service information accessible for earlier model years.

  By and large, the concerns expressed by independent repair technicians have been limited to vehicles equipped with second-generation on-board diagnostic equipment (OBD II). Given the scope and cost of converting service information to allow Internet access and that OBD II was not fully phased in until 1996, we recommend limiting the requirement to 1996 and newer model year vehicles. We further recommend phasing in the requirement for Internet access on 1996 – 2003 (or 2004) MY vehicles or providing an alternative option for access if Internet access is prohibitive. We would like to discuss this further with you.

  As you suggested, manufacturers could provide details needed to obtain pre-1996 service information on the manufacturer's website. Once the manufacturer puts the details needed to obtain service information on their website, we recommend eliminating the requirement for manufacturers to support FedWorld.

  Furthermore, although not addressed in your presentation, the Alliance and AIAM recommend 44limiting the number of model years that manufacturers must make available on the Internet to a 15-year moving window. Given the volume of information for all vehicles in a single model year (some manufacturers produce and publish 400,000 pages of service information for a single model year), maintaining a website with all information for all time, could quickly become unmanageable. Consequently, manufacturers recommend maintaining 15 model years worth of information on their website at any given time.

- Upload Information within 3 Months: Some manufacturers will prepare service information destined for the website differently from the way the information is prepared for distribution to their dealers. In these cases, additional lead-time is needed to make these changes. Furthermore, because franchised dealers perform the overwhelming majority of repairs during the first year (while the vehicle is under warranty), the aftermarket demand for service information during the first year

after introduction will be virtually non-existent. (In fact, most vehicles carry a three-year warranty during which time franchised dealers perform the majority of vehicle repairs.) Consequently, the Alliance and AIAM recommend that manufacturers be allowed one year after model year introduction to upload emissions-related information on websites.

- Information to be included: Using the Internet to deliver the most current service information improves a technician's ability to quickly and accurately diagnosis and repair vehicles. To this end, independent repair shops could benefit from Internet access to service manuals, diagnostic manuals, wiring diagrams, technical service bulletins, and recall service bulletins, and the Alliance and AIAM support these provisions.

  However, some information (e.g., interactive computer training programs and other training materials) does not lend itself to Internet availability and is normally distributed on CD-ROMs. Maintaining control (i.e., preventing software piracy) of copyrighted computer programs distributed over the Internet is very difficult, as evidenced by the lack of widespread availability of commercial software (Excel, WordPerfect, Quicken, etc.) over the Internet. Furthermore, training materials are not necessary for the immediate repair of vehicles in the shop. The training materials themselves should be maintained in the medium for which they were originally designed in order to provide the best information to the user. Consequently, we support requirements for manufacturers to provide electronic ordering capability on their website for all training information.

  - Vehicle Strategies that Set Off the MIL: Some of the information EPA proposes to require (i.e., some minimum and maximum operating values) is already provided in the manufacturers' scan tool, service information, and/or the data-stream information automakers provide to the aftermarket tool industry. The additional information that EPA proposes to require is proprietary, and the Alliance and AIAM continue to oppose requirements that mandate its release. In fact, when manufacturers provide this information to ARB and EPA during the certification process, it is clearly marked "Confidential," and submitted with the expectation that it will not be disclosed to third parties.

    The intent of the service information regulation is to improve air quality by providing for the timely and accurate repair of vehicles. While the Alliance and AIAM believe that this is the case today, EPA is specifying a broad range of requirements for Internet access, diagnostic tools, and reprogramming to take advantage of the latest technological developments in communications. The Alliance and AIAM support these efforts, and in fact, many manufacturers are already moving on their own toward providing service information over the Internet. However, the requirement to provide vehicle strategies that set off the MIL goes well beyond utilizing the latest communications technologies. These requirements force manufacturers to provide proprietary information that is not provided to franchise dealers because it is not necessary for proper and quick repair of vehicles. The Alliance and AIAM oppose requirements to make information available beyond that made available to franchise dealerships.

    While manufacturers vehemently oppose regulatory requirements to provide proprietary information, they are open to the suggestions and recommendations of both independent and dealer technicians that would improve vehicle diagnosis and repair. To this end, the manufacturers are willing to meet with technicians, in an appropriate forum, to discuss service information improvements.

- Provided by OEM Contractors/Vendors to OEM or Dealerships: Again, the Alliance and AIAM oppose regulations to make available information if that information is not made available to franchise dealerships. Such broad requirements prohibit manufacturers from structuring their repair information in the most appropriate manner.

- Interactive, Multimedia CDs for MY 1996 and Later by 1/1/02: Providing the contents of CDs over the Internet will substantially increase the cost of a website, without any demonstrated demand for this additional format. Information is formatted and distributed on CD-ROM in order to provide convenient access to information with the delays and uncertainty associated with providing it over the Internet. Moreover, from a more practical standpoint, downloading 700 Megabytes of information contained on a single CD-ROM at today's speed would take days. Reformatting the information to provide Internet access would not provide a substantial benefit, and the Alliance and AIAM cannot support this new requirement to placing the contents of all CDs on the Internet.

- Streaming Video: While manufacturers may choose to provide information via video over the Internet using streaming video (an option which is not realistic with today's Internet connections), this should not be required.

- Additions, Deletions, Corrections Weekly: Unlike the current distribution methods, the Internet allows information to be instantly updated without significant delays. Consequently, specifying that information be updated on a specific day of the week (or even on the first and third Monday as the current requirement does) is not meaningful. Consequently, the Alliance and AIAM recommend updating website service information coincident with when updated information is provided to dealers, recognizing there may be some incremental delays to upload the information to Internet servers.

- Reasonable Cost: The current regulation provides the Administrator with a list of factors to consider in determining "fair and reasonable price" (cost to produce, type of information, price of similar information, etc.). This list is reasonable, and the Alliance and AIAM recommend retaining it.

- Hyperlinking: By allowing third-party websites to hyperlink to a manufacturer's service-information website homepage, repair technicians can conveniently access any manufacturer's service information from a single site without the need to search for a specific manufacturer's site. This will improve access and convenience. Consequently, the Alliance and AIAM support allowing third parties to hyperlink to the entry point of a manufacturer's website.

- No Use of Proprietary Hardware, Software, Viewers, Browsers, and Formats: The Alliance and AIAM support providing information over the Internet using common "off-the-shelf" software and hardware. However, unnecessarily specific requirements would limit creativity and ingenuity and could result in additional delays and costs not to mention the use of outdated equipment. Thus, we recommend that, if such specificity is deemed necessary, EPA make the requirement very general, such as "*The website shall be accessible using common 'off-the-shelf' hardware and software.*"

- Website Approval by Administrator: Developing a website of the magnitude envisioned by automobile manufacturers and EPA will be an exceptionally large undertaking even for a major manufacturer. For EPA to complete a thorough review of each site (assuming that an objective

measure of an "acceptable" website could be developed, which is far from certain) would require EPA to devote significant resources and time. While we recognize EPA's intent to prevent manufacturers from erecting barriers to website access, such an extensive review by the Administrator to approve each website could delay the unveiling of websites devoted to providing service information or inadvertently stifle creativity and innovation. In addition, presumably EPA approval would be required for website changes. This would again require substantial EPA resources and could cause barriers, or at least delays, in using new Internet capabilities.

- Provide Electronic Version of Database to Information Intermediaries (not just allow intermediaries to have access to the website): Requiring manufacturers to provide information to a third party for the sole purpose of improving that party's revenue is inappropriate. Intermediaries, like any other business, should be responsible for developing their own product without EPA assistance through mandated product exchange. Furthermore, the provision assigning automobile manufacturers the responsibility for ensuring accuracy of another party's product is also not appropriate. The Alliance and AIAM strongly oppose this provision of the draft outline.

Website Performance

The Alliance and AIAM understand EPA's concerns regarding service information website performance and similarly wants to assure that the intent of the regulation is being met. However, we would like to provide some insight and comments with regard to website performance.

It is in all of our manufacturers' best interest to assure that any public user coming in contact with their branded materials has an outstanding experience. Competitive free enterprise between OEMs alone will drive them to improve user interfaces, content, etc.

It is also important to know that website performance is an extremely slippery and elusive issue to assess, monitor, or control. Consider the following individual and stack-up variables that can significantly impact the user perceived performance of any website.

- User connection speed
  - Most connections will be "dial-up" with typical ranges from 19.2 to 56 K BPS.
  - Some dial-up users may have a poor perception of a given site while others will perceive it as acceptable.
  - DSL/ISDN users will have much better perception of speed of response
- User system capabilities
- Traffic on the user's Internet Service Provider's (ISP) server and connection to the Internet
- Traffic on the Internet backbone
- Method and traffic on the system that the OEM uses to connect to the backbone
- Number of users attempting to access the OEM's server at one time
- Size of the service information element being retrieved
- File type can affect size and viewing method (HTML, PDF, XML, WV, etc.)
  - HTML is relatively small
  - PDF is a download and view
  - WV, XML and SGML are significantly larger
- Some sites will stream-view the document rather than download and view
- Individual OEMs parse the same information into different size chunks
  - Some will access page by page

- Others will parse by work packet (the information necessary to perform a task)
- Color vs. black and white wiring diagrams and how much of the circuit is in a given download/view

Individually these variables can easily lead to significant minute-to-minute performance changes. Combined, in a stack-up, the variables can be in the hundreds of percentage points. The Alliance and AIAM feel that the approval and performance monitoring being suggested by EPA will be virtually impossible to monitor/control and will preposition the users to complain to EPA and OEMs that one site is better than another. Some sites will certainly be more functional than others, and the performance of all sites will ebb and flow from one day to another or one minute to another -- that is the nature of the Web.

Certainly EPA understands that the user interfaces will vary substantially from OEM to OEM and some will be favored more than others. The issue is timely information access for the purpose of dynamically helping someone engaged in the repair of an automobile -- not how functional we can make a website. Let's not forget the availability and speed to access the information will be unprecedented by any current measurement. Consider the current situation: original information is, at a minimum, over 24 hours and $100 away from most independent service providers. Accordingly, whether one website provides the information for five dollars, in three screens, and four minutes of navigation or another site is ten dollars, in five screens, and ten minutes of navigation seems to be academic by comparison.

The Alliance and AIAM would like to suggest some alternative language to the current direction of performance monitoring. This language is more focused on isolating wanton/willful impediments to website access, which is our understanding of EPA's motive for promulgating such regulations.

> *OEM service information website access and response will typically be consistent with other publicly available information sites that provide compound, full-content documents (some containing color) from large libraries of information.*
>
> *A committee will assess OEM sites that continuously demonstrate impediments to user-friendly access/response. The committee, appointed by the Agency, will have members from OEMs as well as independents. After reviewing and comparing with other OEMs and similar Internet sites, the committee will make recommendations to the Agency/OEM for mutually satisfactory resolution.*

- Website Access Information Retrieval: For reasons mentioned above, automobile manufacturers intend to ensure that information is readily available as quickly as possible to the individual users. As such, OEMs will not require a vehicle identification number (VIN) to access information. However, some of the search criteria specified in the draft outline may inflate cost and complexity without providing a meaningful improvement in accessibility. The websites will be designed for use by repair technicians who are both computer literate and knowledgeable on the information they are seeking. Thus, a requirement to provide for searches using "phrases" might not be necessary provided a keyword search is available. The same is true for using the VIN to search the database – a repair technician will undoubtedly know the model and year of the vehicle for which they need information. This is not to say that EPA should prohibit manufacturers from optionally using the VIN as one search alternative. However, requiring the additional search criteria would not significantly improve the site, and might add cost to supply the information. Again, the more

flexible the requirements, the more creative and innovative website managers can be in designing robust and effective systems.

- Website Assessment Option: While this option is appealing to manufacturers as an alternative to overly specific requirements on the performance and capabilities of the website, we would refer to the suggestions above under "Website Performance." These options provide the greatest flexibility to manufacturers who are already motivated to produce a good product.

Training via Satellite and Internet:

Based on recent discussions with EPA, the Alliance and AIAM support making videotapes of satellite training sessions or CDs of Internet training available to independent repair technicians. These videotapes or CDs would be available for purchase on the manufacturer's website, although the content of the videotape or CD would not be available on the website (again, having the CD or videotape is far more useful than streaming video to the technician and eliminates the burden of placing this information on the Internet for the manufacturers). As EPA discussed, this provision would only apply to satellite training led by manufacturers for their franchised dealers and does not require manufacturers to lead interactive training to outside organizations.

Definition of Emission-Related

The current regulations define "emission related information" as: "information regarding any system, component or part of a vehicle that controls emissions and any system component and/or part associated with the powertrain, including, but not limited to, the fuel system and ignition system…and any system that is likely to impact emissions, such as transmission systems." The Alliance and AIAM believe that this wording is sufficiently broad with the possible exception of the engine control unit (ECU) anti-theft device. For the anti-theft device, we support your proposal, provided that the details of this proposal would in no way jeopardize the security system of the vehicle.

We would like to briefly discuss vehicle anti-theft systems. Manufacturers spend considerable resources to prevent vehicle theft, and in large part because of these efforts, vehicle theft has fallen dramatically over the last few years. Thus, in adopting regulations that affect the vehicle security system, EPA must carefully craft them to prevent loopholes that would allow potential car thieves from demanding and receiving information or tools that would allow them to disable the vehicle's security system and steal the vehicle.

If EPA desires further clarification on the definition of "emission related," the Alliance and AIAM recommend adding the following to the current definition:

> *Information regarding any system, component or part of a vehicle monitored by the OBD system that could, if at fault, directly cause the OBD system to illuminate the malfunction indicator light (MIL).*

Reprogramming

The EPA draft outline does not provide enough details on "pass-through" reprogramming to allow the Alliance and AIAM to establish a firm position on this issue. The technical specifications for a "pass-through" reprogramming system are far from finalized, and it is possible that such a system, while feasible, might be cost prohibitive for independent repair shops. The number of reprogramming events

that independents perform is very small because reprogramming normally occurs during the first few years of vehicle introduction when the vehicle is under warranty. Consequently, independents that typically only reprogram a few vehicles each month are unlikely to willingly incur a substantial cost for a "pass-through" reprogramming tool plus pay the additional cost for a reprogramming subscription from several manufacturers.

Nonetheless, the Alliance and AIAM understand EPA's desire to promulgate the "pass-through" system. In doing so, we recommend that EPA establish an SAE technical working group with representatives from EPA, automakers, and equipment manufacturers, to develop the standard for this system, and address the technical issues involved with this proposed requirement. At the October 13, 1999, meeting of the SAE E/E Diagnostics Committee, the Committee unanimously supported the formation of a task force to address "pass-through" reprogramming issues with EPA and ETI.

Assuming that the technical issues can be resolved, the Alliance and AIAM believe that, for manufacturers who do not use a proprietary link for reprogramming, the changes could be implemented as early as calendar year 2004 and applied retroactively to 1994 MY and newer OBD II equipped vehicles with flash reprogramming where the ability to reprogram is provided to franchised dealerships.

Manufacturers currently using a proprietary link for reprogramming will need additional consideration, and will meet separately with EPA to discuss their issues.

Obviously, no requirements will exist for those manufacturers that do not provide reprogramming capability to their franchise dealerships.

Generic and Enhanced Information

- Provide Generic and Enhanced Information in English: The Alliance and AIAM agree with providing data stream and bi-directional control information for 1994 and later OBD II equipped vehicles.

  However, the "description of logic and performance limits/specifications used in OEM-specific tools to perform diagnostic routines/subroutines (e.g., injector balance test, etc.)" is proprietary information. This "description" is basically the design information for the manufacturer's tool and is not needed to design and manufacture a tool that performs the same functions as the manufacturer's tool. The effect of this requirement would be to eliminate the need for tool manufacturers to conduct basic research and development to design diagnostic tools and would instead allow them to simply copy the OEM's tool, which was developed at great expense to the OEM. Such a requirement is patently unfair, would violate the intellectual property rights of the original parts manufacturer, and should not be adopted.

- Uploaded to a secure website in specific format (including handwritten notes): This requirement is still unclear. The Alliance and AIAM could support a requirement to provide the data stream and bi-directional control information in an electronic format. Furthermore, we do not object to the Equipment and Tool Institute (ETI) uploading the information onto a secure website as long as ETI meets the OEM's standards for treatment and use of that information. However, requiring automobile manufacturers to reformat information for the sole purpose of assisting third parties is inappropriate, and we do not support this requirement.

- Make All OEM-Specific Diagnostic Tools Available for Sale: As discussed above, the Alliance and AIAM support making available data-stream information for tool and equipment makers to develop diagnostic tools that perform the same functions as the automobile manufacturers' tools. However, a mandate that manufacturers make available their specific diagnostic tools would be costly and would provide little benefit to independent repair shops.

  Independent repair shops typically work on vehicles from many different manufacturers. Consequently, they have expressed a desire to obtain third-party (Snap-On, OTC, etc.) diagnostic tools that perform enhanced diagnostics across several vehicle manufacturers. This allows the independent repair shop to purchase one tool (normally at about the same cost as the tool from a single manufacturer) instead of purchasing several different tools. Recognizing this demand, tool manufacturers are responding by designing single tools for Asian vehicles, European vehicles, or domestic vehicles. Currently, manufacturers can meet EPA requirements by making available EITHER their own tool OR the data-stream information. By requiring all automakers to provide data-stream information, EPA could further facilitate the consolidation of multiple vehicle lines into a single tool.

  If manufacturers make their tool available to independents, they must establish the infrastructure to sell the tools, to warrant the tools, and to service the tools. This infrastructure is costly and is not likely to be offset by sales volume. Simply put, very few independent repair shops would invest in a tool that works on only one vehicle line, when they can purchase another tool that performs many of the same functions across many vehicle lines. Yet, the automobile manufacturer would incur about the same cost to service the tool regardless of the demand for the tool.

  Furthermore, in many cases manufacturers would need to redesign their tools to protect anti-theft and personal communications functions that are not emission related and which manufacturers will not release. If publicly released, this information could jeopardize vehicle security and personal privacy. Additionally, some OEM tools contain significant capabilities that, if used incorrectly, could potentially damage a vehicle's emission control system or power train. Prior to making the tool available, a manufacturer would need to redesign the on-board computer to prevent such damage or manufacturers would require the purchaser to undergo rigorous training prior to purchasing the tool.

  In summary, providing the data-stream information to third party equipment and tool companies, as discussed in a prior section, best serves the independent repair shops and is the most cost-effective alternative for all of the parties involved.

- Other – Special Tools: While there is not sufficient information in the draft outline to provide an informed response, the Alliance and AIAM could support this requirement (i.e., to make available both the tool to the aftermarket and the data-stream information available to tool makers) provided that this requirement is limited to tools needed to reset the fault codes and MIL.

- Other – Responsibility for Compliance: EPA is considering the following: If an automaker (referred to here as the "majority automaker") owns more than 50% of another automaker, then the majority automaker will be responsible for compliance with OBD regulations. The purpose of this requirement is to streamline the process by limiting the number of companies and individuals with which EPA must interact. Even though a "majority automaker" may own a controlling interest in another automaker, the "majority automaker" is unlikely to assume any responsibility for OBD

design and development decisions. While it might be convenient to contact only one person from the "majority automaker" with questions on OBD systems, that person will not have the knowledge to respond. The "majority automaker" would refer EPA to the appropriate OBD expert from the other automaker. Consequently, instead of streamlining the process, this approach actually complicates it by adding another step and another individual to contact. Furthermore, this requirement is not related to improving service information.

In addition to complicating the process, the Alliance and AIAM are concerned that such a requirement would nullify the protections granted through corporate law, without due process or the appropriate authority. As such, the Alliance and AIAM do not support this provision.

Basically, the manufacturer certifying the vehicle should be responsible for all aspects of compliance including service information requirements.

- Other – Heavy-Duty: The heavy-duty service industry is considerably different than the light-duty passenger car industry. In fact, OBD regulations have not even been finalized for heavy-duty vehicles at this time. Consequently, the Alliance and AIAM recommend that EPA address service information requirements for heavy-duty vehicles separately and at a later time.

- Other – CAN: The Alliance and AIAM support adopting the CAN protocol as an option for vehicle communication buses, consistent with the requirements that the California Air Resources Board is now considering as part of its OBD II review.

Again, we appreciate the opportunity you have provided us to comment on the draft outline of the OBD Service Information NPRM, and we look forward to working with you and your staff on this rulemaking during the next year. If you have any questions, please feel free to call us.

Sincerely,

<Signed 10/15/99> <Signed for by Steven Douglas 10/15/99>

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